

INTERNAL CORRESPONDENCE

 EHMD-MS (UNIT)	TO Waylon Litton	DATE July 5, 1988
	FROM Janet Smith <i>JS</i>	SUBJECT Asbestos

Enclosed are the analytical results, air monitoring form and employee notification for asbestos monitoring conducted April 22, 1988 for Bennie Terrell (Attachment I). This is the sample found in the IH office during my last visit to Southwestern. The sample was forwarded to Hager Laboratories for analysis.

The airborne concentration for the time monitored is 0.5 f/cc. The eight-hour time-weighted average (TWA) of 0.12 f/cc is below the OSHA PEL of 0.2 f/cc. However, both the eight-hour TWA and the concentration for the time monitored exceed the OSHA action level of 0.1 f/cc.

The 0.5 f/cc concentration is higher than expected for this type of operation. The sample form does not indicate whether a glove bag was utilized during the operation or whether wet methods were employed. This employee should be remonitored on a similar removal to insure that standard operating procedures are being followed.

A computer summary of asbestos monitoring results for 1987 is enclosed as Attachment II. A similar summary for 1988 is enclosed as Attachment III. To date, the facility has completed four asbestos personal monitoring samples. Air monitoring should be conducted each time insulators are removing asbestos containing materials. Operations, involving the removal of gaskets containing asbestos (i.e., where chipping or grinding is employed), should be monitored as well.

JS/1h

xcs: G. D. Lathrop, M.D.
T. Sands

1B 001603

EMPLOYEE MONITORING NOTIFICATION

KM-4772-B

ID NUMBER	1841
DATE	7/5/88

SUBSIDIARY/DIVISION	Refining	FACILITY	Southwestern Refinery
EMPLOYEE NAME (LAST, FIRST)	Torrell, Benjie	EMPLOYEE NUMBER	454-04-0503
JOB TITLE	Insulator	WORK LOCATION	Scrapyard

NOISE SURVEY	EMPLOYEE'S ACTUAL 8 HOUR-TIME-WEIGHTED AVERAGE		TYPE/BRAND HEARING PROTECTION WORN	
	EMPLOYEE'S REPRESENTATIVE 8 HOUR-TIME WEIGHTED AVERAGE			
	OSHA PERMISSIBLE EXPOSURE	OSHA ACTION LEVEL	EMPLOYEE ENROLLED IN HEARING CONSERVATION PROGRAM	

SUBSTANCE SURVEY	SUBSTANCE	EMPLOYEE'S 8 HOUR-TIME-WEIGHTED AVERAGE	OSHA 8 HOUR PERMISSIBLE EXPOSURE LIMIT	CEILING EXPOSURE LEVEL		SHORT TERM EXPOSURE LEVEL		PERSONAL PROTECTIVE EQUIPMENT WORN		OSHA ACTION LEVEL
				EMPLOYEE	OSHA/ACGIH	EMPLOYEE	OSHA/ACGIH	YES	NO	
	Asbestos	0.12	0.1	-	-	-	-	2	-	0.1 f/cc

PERSONAL PROTECTIVE EQUIPMENT	RESPIRATOR	Halfmask with HEPA filter	SURVEY PERFORMED BY C. DeYong ENGINEERING CONTROL	SURVEY DATE 4/22/88
	BODY	Kyvek		
	GLOVES			
	OTHER	H. Hat/Safety Glasses		

ACTION TAKEN

Note: Delay in sample analysis due to departure of industrial hygienist.

1B 001602

EMPLOYEE SIGNATURE	COMPANY REPRESENTATIVE SIGNATURE	DATE
<i>[Signature]</i>	<i>[Signature]</i>	7-5-88

DISTRIBUTION: ORIGINAL - Employee
COPY - Facility File
COPY - Corporate Medical Services



ATTACHMENT I
11234 East Caley Avenue
Englewood, Colorado 80111
(303) 790-2727 (800) 282-1835
FAX # (303) 790-2756

REPORT ON SERVICE NUMBER 34681AH
June 20, 1988

To: Ms. Janet C. Smith
Kerr McGee Corporation
Oklahoma City, Oklahoma

Analysis: The following sample was submitted for analysis:
One membrane filter sample and one blank for asbestos count.

Method: ASBESTOS (count)
The fiber concentration of each filter sample was determined following NIOSH Method 7400. Wedges from each filter were examined at 400 power using phase contrast microscopy. All fibers longer than five (5) microns with a length-to-width ratio of 3:1 or more were counted as asbestos.

Results: The results are found on Table 1.

Discussion: The present OSHA permissible exposure limit (PEL) for asbestos is 0.2 fibers/cc.

LT() indicates "less than" with the lower limit of quantification shown in parentheses.

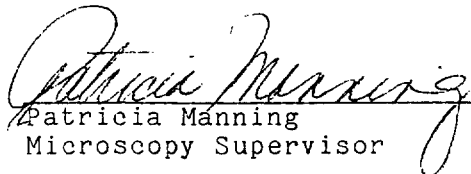
All samples have been corrected for the blank unless otherwise noted.

Laboratory data are filed and available upon request.

Hager Laboratories Inc. has been AIHA accredited since 1977 and EPA approved for asbestos since 1979. A portion of each sample is retained for subsequent review and future analysis.

If you have any questions, please call customer service.

Submitted by:


Patricia Manning
Microscopy Supervisor

PM/agg

RECEIVED
JUN 24 1988
Medical Services

1B 001604

SWRf/Asbestos 2095

SN 34681AH
June 20, 1988

TABLE 1

Sample Number	Counted (fibers)	Counted (fields)	Total (fibers)	Air Volume (liters)	Air Concentration (fibers/cc)
1841A	259.	100.	113000.	226.	0.50
1841B Blank	1.	100.	LT(4380.)	-	-

1B 001605

INSTRUCTIONS: Originator attaches Part 2 to laboratory results and forwards to Medical Services.

ID/SAMPLE NO.	1841
DATE	4-22-88

INDUSTRIAL HYGIENE SURVEY DATA - AIR MONITORING KM-4293-A

FACILITY	Southwestern Refinery	WORK LOCATION	Scrapyard
EMPLOYEE NAME (LAST, FIRST)	Terrell, Bennie	EMPLOYEE NUMBER	454-04-0503
JOB TITLE	Insulator	SURVEYOR	Campy

TYPE OF PERSONAL PROTECTIVE EQUIPMENT	RESPIRATOR	Half face w/ hepa filter	SAMPLING CONDITIONS	TEMPERATURE	85°F	CALIBRATION RECORD	PUMP MANUFACTURER/S.N.	BDX #3
	BODY	Disposable Tyvek		RELATIVE HUMIDITY	65%		PRE FLOW RATE	2.0 lpm
	GLOVES	-		BAROMETRIC PRESSURE	29.68" Hg		POST FLOW RATE	2.0 lpm
	OTHER	hard hat / safety glasses		AIR VELOCITY	SE9 fpm mph		DIFFERENCE FLOW	-0-

SAMPLING DATA	Lob Sample Number	88-47			
	I.D. Number	1841			
	Time On	0837			
	Time Off	10:30			
	Total Time (min.)	113			TOTAL TIME 113
	Flow Rate (LPM)	2.0 lpm.			
	Sample Media	MCEF			
	Volume (Liters)	226			TOTAL VOLUME 226
Net Sample Wt.					

LABORATORY RESULTS	1.	Asbestos	0.5			
	2.					
	3.					
	4.					
	5.					
	6.					

* Note- These samples found while cleaning I.H. office 06/08/88

FOR MEDICAL SERVICES USE ONLY	SAMPLE ANALYSIS	SUBSTANCE	TWA (Time)	TWA 8(hr)	UNITS	AUTHORITY	STND. NO.	SEVERITY	ANALYTICAL METHOD
		1. Asbestos	0.5	.12	f/cc	OSHA	0.2		NIOSH-7400
		2.							
		3.							
		4.							
		5.							
		6.							

LABORATORY USED		Hagen Laboratory -	
(WORK ACTIVITIES, OPERATION, LOCATION, VENTILATION, CONTROLS)			
Sample taken during removal from piping in scrapyard			
REVIEWED BY	DATE	BLANKS (No.)	2 blanks
COMMENTS		BULKS (No.)	

1B 001607

MEDICAL SERVICES DEPARTMENT
ENVIRONMENT AND HEALTH MANAGEMENT DIVISION
KERR-MCGEE CORPORATION

ATTACHMENT II

SOUTHWESTERN REFINERY
AIRBORNE CONCENTRATIONS

=DATE=	=LOCATION=	=EMPLOYEE NAME=	=EMP. NUMB=	=JOB TITLE=	=TWA-T=	=TWA-B=	=STND=	=UNITS=	=BK=	TIME=	P	E=
												=R=B=
. SUBSTANCE: ASBESTOS												
01-12-87	MAINTENANCE	R WOLFORD	453-23-1404	INSULATOR	.24	.03	.20	F/CC		60	Y	Y
01-12-87	MAINTENANCE	V VALLEJO	464-58-2722	INSULATOR	.14	.02	.20	F/CC		60	Y	Y
02-24-87	CRUDE I	L WOLFORD	569-22-2865	PRODUCTION OP.	.02	.00	.20	F/CC		55	Y	Y
02-25-87	CRUDE II	V VALLEJO	464-58-2722	INSULATOR	.00	.00	.20	F/CC		95	Y	Y
03-07-87	CRUDE II		000-00-0000	INSULATOR	.00	.00	.20	F/CC		45	Y	Y
04-13-87	MAINTENANCE	R WOLFORD	000-00-0000	INSULATOR	.07	.00	.20	F/CC		33	Y	Y
07-30-87	CAT I	AREA	000-00-0000		< .01	< .00	.20	F/CC		110		
07-30-87	CAT I	R WOLFORD	453-23-1404	INSULATOR	.04	.01	.20	F/CC		115	Y	Y
07-31-87	CAT I	R WOLFORD	453-23-1404	INSULATOR	.03	.03	.20	F/CC		400	Y	Y
07-31-87	CAT I	AREA	000-00-0000		< .01	< .01	.20	F/CC		420		
08-03-87	CAT I	V VALLEJO	464-58-2722	INSULATOR	< .04	< .01	.20	F/CC		125	Y	Y
08-03-87	CAT I	AREA	000-00-0000		< .01	< .00	.20	F/CC		125		
08-05-87	SCRAPYARD	B GREER	454-04-0503	INSULATOR	.02	.00	.20	F/CC		25	Y	Y
08-12-87	SULFOLANE UNIT	R WOLFORD	453-23-1404	INSULATOR	.04	.01	.20	F/CC		115	Y	Y
08-12-87	SULFOLANE UNIT	AREA	000-00-0000		< .01	< .00	.20	F/CC		120		
08-17-87	CAT I	V VALLEJO	464-58-2722	INSULATOR	< .01	< .00	.20	F/CC		225	Y	Y
08-17-87	CAT I	AREA	000-00-0000		< .01	< .01	.20	F/CC		262		
08-18-87	CAT I	N WOLFORD	453-23-1404	INSULATOR	.02	.02	.20	F/CC		415	Y	Y
08-19-87	CAT I	AREA	000-00-0000		< .01	< .01	.20	F/CC		300		
08-19-87	CAT I	V VALLEJO	464-58-2722	INSULATOR	.01	.01	.20	F/CC		295	Y	Y
08-20-87	CAT I	N WOLFORD	453-23-1404	INSULATOR	000000	.00	.20	F/CC		0	Y	Y
08-20-87	CAT I	AREA	000-00-0000		< .01	< .01	.20	F/CC		410		
08-21-87	CAT I	V VALLEJO	464-58-2722	INSULATOR	.04	.01	.20	F/CC		155	Y	Y
09-01-87	CAT I	V VALLEJO	464-58-2722	INSULATOR	.02	.02	.20	F/CC		370	Y	Y
09-02-87	CAT I	V VALLEJO	464-58-2722	INSULATOR	< .01	< .01	.20	F/CC		430	Y	Y
09-03-87	CAT I	V VALLEJO	464-58-2722	INSULATOR	.02	.01	.20	F/CC		323	Y	Y
09-10-87	CAT I UNIT	N WOLFORD	453-23-1404	INSULATOR	.01	.01	.20	F/CC		270	Y	Y
09-11-87	CAT I UNIT	N WOLFORD	453-23-1404	INSULATOR	.05	.03	.20	F/CC		240	Y	Y
09-16-87	ALKY UNIT	N WOLFORD	453-23-1404	INSULATOR	.18	.04	.20	F/CC		100	Y	Y
09-17-87	ALKY UNIT	N WOLFORD	453-23-1404	INSULATOR	.08	.03	.20	F/CC		150	Y	Y
09-23-87	CRUDE I	N WOLFORD	453-23-1404	INSULATOR	.03	.00	.20	F/CC		34	Y	Y
09-24-87	SULFOLANE UNIT	V VALLEJO	464-58-2722	INSULATOR	.04	.04	.20	F/CC		435	Y	Y
09-25-87	SULFOLANE UNIT	V VALLEJO	464-58-2722	INSULATOR	.03	.03	.20	F/CC		410	Y	Y
09-29-87	SULFOLANE UNIT	V VALLEJO	464-58-2722	INSULATOR	.01	.01	.20	F/CC		295	Y	Y
10-01-87	SULFOLANE UNIT	V VALLEJO	464-58-2722	INSULATOR	.13	.12	.20	F/CC		445	Y	Y
10-06-87	ALKY UNIT	V VALLEJO	464-58-2722	INSULATOR	.02	.02	.20	F/CC		406	Y	Y
10-07-87	ALKY UNIT	V VALLEJO	464-58-2722	INSULATOR	.01	.01	.20	F/CC		438	Y	Y
10-14-87	ALKY UNIT	V VALLEJO	464-58-2722	INSULATOR	.02	.02	.20	F/CC		380	Y	Y
10-15-87	ALKY UNIT	V VALLEJO	464-58-2722	INSULATOR	.10	.09	.20	F/CC		430	Y	Y
11-19-87	CRUDE I	N WOLFORD	453-23-1404	INSULATOR	.04	.01	.20	F/CC		75	Y	Y
11-23-87	CRUDE I	N WOLFORD	453-23-1404	INSULATOR	< .02	< .00	.20	F/CC		90	Y	Y

1B 001608

05-Jul-88

SOUTHWESTERN INDUSTRIAL HYGIENE AIR MONITORING

Page 2

=DATE=	=LOCATION=	=EMPLOYEE NAME=	=ENP. NUMB=	=JOB TITLE=	=TWA-T=	=TWA-B=	=STND=	=UNITS=	=BK=	TIME=	=P P E=
											=R=B=G=
11-24-87	CAT I	N WOLFORD	453-23-1404	INSULATOR	.01	.00	.20	F/CC		210	Y Y Y

55

TWA-T: TIME-WEIGHTED AVERAGE CONCENTRATION FOR THE TIME SAMPLED.

TWA-B: TIME-WEIGHTED AVERAGE CONCENTRATION FOR AN 8-HOUR WORKDAY.

STND: STANDARD FOR THE SUBSTANCE MONITORED.

BK: BREAKTHROUGH. INDICATES POTENTIAL SAMPLE LOSS DUE TO BREAKTHROUGH OF THE SUBSTANCE IN THE SORBENT MEDIA.

TIME: TIME IN MINUTES OVER WHICH THE MONITORING WAS DONE.

PPE: PERSONAL PROTECTIVE EQUIPMENT. R INDICATES RESPIRATOR. B INDICATES BODY PROTECTION. G INDICATES GLOVES.

1B 001609

SWRf/Asbestos 2101

Page 1

SOUTHWESTERN REFINERY
AIRBORNE CONCENTRATIONS

SUBSTANCE: ASBESTOS										
01-26-88	CRUDE I	N WOLFORD	453-23-1404	INSULATOR	.16	.06	.20	F/CC	180	Y Y Y
03-01-88	CRUDE II	N WOLFORD	453-23-1404	INSULATOR	.03	.00	.20	F/CC	75	Y Y Y
03-07-88	#3 TERMINAL	AREA	000-00-0000		< .01	< .00	.20	F/CC	190	
03-07-88	#3 TERMINAL	AREA	000-00-0000		.02	.01	.20	F/CC	175	
03-08-88	#3 TERMINAL	AREA	000-00-0000		.01	.00	.20	F/CC	336	
03-08-88	#3 TERMINAL	AREA	000-00-0000		< .01	< .00	.20	F/CC	336	
03-28-88	#1 TERMINAL	V VALLYO	464-58-2722	INSULATOR	< .00	< .00	.20	F/CC	115	Y Y Y
04-22-88	SCRAPYARD	B TERRELL	454-04-0503	INSULATOR	.50	.12	.20	F/CC	113	Y Y N

PPE: PERSONAL PROTECTIVE EQUIPMENT. R INDICATES RESPIRATOR. B INDICATES BODY PROTECTION. G INDICATES GLOVES.

SWRf/Asbestos 2102